Mr. Gord Cavdek
Dana Coupled Products
2651 South 600 East
Columbia City, Indiana 46725

Re: Registered Operation Status,
183-14330-00015

Dear Mr. Cavdek:

The application from Dana Coupled Products, received on April 25, 2001 has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following stationary source that manufactures metal automotive parts, located at 2651 South 600 East, Columbia City, Indiana 46725, is classified as registered:

(a) One (1) natural gas-fired boiler, with a heat input capacity of 5.2 million British Thermal Units per hour (mmBtu/hr);

(b) One (1) natural gas-fired barrel line #2 dryer, with a heat input capacity of 1.0 mmBtu/hr;

(c) Two (2) natural gas-fired rack dryers, identified as #1 and #2, each has a heat input capacity of 0.8 mmBtu/hr;

(d) One (1) natural gas-fired open top wash station dryer, with a heat input capacity of 1.1 mmBtu/hr;

(e) One (1) natural gas-fired Bowden wash station dryer, with a heat input capacity of 1.1 mmBtu/hr;

(f) One (1) electric FMT wash station dryer;

(g) Three (3) natural gas-fired braze furnaces identified as #1, #5 and #6, each has a heat input capacity of 0.51 mmBtu/hr;

(h) Three (3) natural gas-fired braze furnaces, identified as #2, #3, and #4, each has a heat input capacity of 0.61 mmBtu/hr;

(i) One (1) natural gas-fired braze furnace, identified as #7, with a heat input capacity of 0.40 mmBtu/hr;

(j) Seven (7) natural gas-fired space heaters, identified as space heaters #1, #2, #3, #4, #5, #6, and #7, each has a heat input capacity of 0.132 mmBtu/hr;

(k) Six (6) natural gas-fired space heaters, identified as space heaters #8, #9, #10, #11, #12, and #13 , each has a heat input capacity of 0.20 mmBtu/hr;

(l) Eight (8) natural gas-fired air make-up units, identified as make-up units #1, through #8,

each has a heat input capacity of 0.001 mmBtu/hr;

(m) One large wall air make-up unit, with a capacity of 9.1 mmBtu/hr;

(n) Machining operation which consists of fifteen (15) Kingsbury machines, eleven (11) Acme machines, seven (7) Davenport machines, five (5) Hydromat machines, eight (8) Rismatic machines, two (2) saw machines, one (1) broach machine, one (1) CNC machine, one (1) Barker mill machine, one (1) Hause machine, one (1) Brown & Sharp machine. Twenty (20) of the above mentioned machines are capable of machining 150 pounds per hour (lbs/hr) of brass metal. Thirty- three (33) of the above mentioned machines are capable of machining 50 lbs/hr of steel metal;

(o) One (1) deburring machine #1, identified as DBR #1, with a capacity of 225 lbs/hr;

(p) One (1) deburring machine #2, identified as DBR1-01, with a capacity of 150 lbs/hr;

(q) One (1) deburring machine #3, identified as Pine deburrer, with a capacity of 7 lbs/hr;

(r) One (1) deburring machine #4, identified as Quick Connect, with a capacity of 300 lbs/hr;

(s) Steel forming operation which consists of eleven (11) power steering end formers, thirty-six (36) hydraulic brake benders, and eleven (11) A/C end formers. This operation has a capacity of 100 lbs/hr of steel;

(t) Bending machines which consists of forty-four (44) power steering benders;

(u) Fifteen (15) crimping machines;

(v) Three (3) inliner machines;

(w) Eight (8) serators with a total capacity of 75 lbs/hr;

(x) Three (3) parts washers, rated at 1.8 gallons per hour;

(y) Electroplating operation, which consists of barrel lines #1 and #2, rack lines #1 and #2. Barrel line #1 utilizes a soak clean, electro-clean, acid activator, nickel chloride, alkaline zinc, yellow iridescent/bronze chromate and rust inhibitor bath. Barrel line #2, rack line #1 and rack line #2 each utilizes a soak clean, electro-clean, acid activator, alkaline zinc/nickel sulfate, yellow irisdescent/bronze chromate and rust inhibitor bath;

(z) Final assembly operation capable of using 26 solvent markers/day;

(aa) Six (6) electric lift trucks and six (6) propane lift trucks; and

(bb) Wastewater pretreatment operations.

The following conditions shall be applicable:

(1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute

averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuos opacity monitor in a six (6) hour period.

(2) Pursuant to 326 IAC 6-3-2 (Process Operations), the PM emissions from the following facilities shall be limited as follows:

Facility ID	Process Weight Rate (tons/hr)	PM Emissions Limit (pounds/hour)
Machining	0.075	0.72
Deburring	0.341	1.99
Electroplating	0.008	0.16

The pounds per hour limitation shall be calculated using the following equation:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

(3) Pursuant to 326 IAC 6-2-4 (PM Emissions from Sources of Indirect Heating), the PM emissions from the one (1) 5.2 mmBtu/hr natural gas-fired boiler shall be limited to 0.60 pound per million Btu (lb/mmBtu).

(4) Any change in the liquid used by the two (2) parts washers from caustic soda into liquid that contains VOC, shall make the two parts washers subject to 326 IAC 8-3 (Organic Solvent Degreaser).

This existing source is being re-permitted based on the new 326 IAC 2 rules. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3)). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

APD

cc: File - Whitley County
Whitley County Health Department
Air Compliance - Ryan Hillman
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Registration
Annual Notification

This form should be used to comply with the notification requirements under **326 IAC 2-5.5-4(a)(3)**.

Company Name:	**Dana Coupled Products**
Address:	**2651 South 600 East**
City:	**Columbia City**
Authorized individual:	**Gord Cavdek**
Phone #:	**(219) 248-3200**
Registration #:	**183-14330-00015**

I hereby certify that **Dana Coupled Products** is still in operation and is in compliance with the requirements of Registration **183-14330-00015**.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registered Source

Source Background and Description

Source Name:	Dana Coupled Products
Source Location:	2651 South 600 East, Columbia City, Indiana 46725
County:	Whitley
SIC Code:	3714
Registration No.:	183-14330-00015
Permit Reviewer:	Aida De Guzman

The Office of Air Quality (OAQ) has reviewed an application from Dana Coupled Products relating to the operation of an automotive parts manufacturing source, which consists of the following facilities:

(a) One (1) natural gas-fired boiler, with a heat input capacity of 5.2 million British Thermal Units per hour (mmBtu/hr);

(b) One (1) natural gas-fired barrel line #2 dryer, with a heat input capacity of 1.0 mmBtu/hr;

(c) Two (2) natural gas-fired rack dryers, identified as #1 and #2, each has a heat input capacity of 0.8 mmBtu/hr;

(d) One (1) natural gas-fired open top wash station dryer, with a heat input capacity of 1.1 mmBtu/hr;

(e) One (1) natural gas-fired Bowden wash station dryer, with a heat input capacity of 1.1 mmBtu/hr;

(f) One (1) electric FMT wash station dryer;

(g) Three (3) natural gas-fired braze furnaces identified as #1, #5 and #6, each has a heat input capacity of 0.51 mmBtu/hr;

(h) Three (3) natural gas-fired braze furnaces, identified as #2, #3, and #4, each has a heat input capacity of 0.61 mmBtu/hr;

(i) One (1) natural gas-fired braze furnace, identified as #7, with a heat input capacity of 0.40 mmBtu/hr;

(j) Seven (7) natural gas-fired space heaters, identified as space heaters #1, #2, #3, #4, #5, #6, and #7, each has a heat input capacity of 0.132 mmBtu/hr;

(k) Six (6) natural gas-fired space heaters, identified as space heaters #8, #9, #10, #11, #12, and #13 , each has a heat input capacity of 0.20 mmBtu/hr;

(l) Eight (8) natural gas-fired air make-up units, identified as make-up units #1, through #8, each has a heat input capacity of 0.001 mmBtu/hr;

(m) One large wall air make-up unit, with a capacity of 9.1 mmBtu/hr;

(n) Machining operation which consists of fifteen (15) Kingsbury machines, eleven (11) Acme machines, seven (7) Davenport machines, five (5) Hydromat machines, eight (8) Rismatic machines, two (2) saw machines, one (1) broach machine, one (1) CNC machine, one (1) Barker mill machine, one (1) Hause machine, one (1) Brown & Sharp machine. Twenty (20) of the above mentioned machines are capable of machining 150 pounds per hour (lbs/hr) of brass metal. Thirty- three (33) of the above mentioned machines are capable of machining 50 lbs/hr of steel metal;

(o) One (1) deburring machine #1, identified as DBR #1, with a capacity of 225 lbs/hr;

(p) One (1) deburring machine #2, identified as DBR1-01, with a capacity of 150 lbs/hr;

(q) One (1) deburring machine #3, identified as Pine deburrer, with a capacity of 7 lbs/hr;

(r) One (1) deburring machine #4, identified as Quick Connect, with a capacity of 300 lbs/hr;

(s) Steel forming operation which consists of eleven (11) power steering end formers, thirty-six (36) hydraulic brake benders, and eleven (11) A/C end formers. This operation has a capacity of 100 lbs/hr of steel;

(t) Bending machines which consists of forty-four (44) power steering benders;

(u) Fifteen (15) crimping machines;

(v) Three (3) inliner machines;

(w) Eight (8) serators with a total capacity of 75 lbs/hr;

(x) Three (3) parts washers, rated at 1.8 gallons per hour;

(y) Electroplating operation, which consists of barrel lines #1 and #2, rack lines #1 and #2. Barrel line #1 utilizes a soak clean, electro-clean, acid activator, nickel chloride, alkaline zinc, yellow iridescent/bronze chromate and rust inhibitor bath. Barrel line #2, rack line #1 and rack line #2 each utilizes a soak clean, electro-clean, acid activator, alkaline zinc/nickel sulfate, yellow irisdescent/bronze chromate and rust inhibitor bath;

(z) Final assembly operation capable of using 26 solvent markers/day;

(aa) Six (6) electric lift trucks and six (6) propane lift trucks; and

(bb) Wastewater pretreatment operations.

The source's existing permits do not indicate the exact equipment that has been permitted. The aggregation of emissions from this equipment might have been previously exempted from permitting. However, since the emission level has changed into Registration level, a New Source Review/Registration fee will be charged.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) Construction Permit No. PC (92) 1647, issued on September 21, 1987;
(b) Operation Permit No. 92-05-89-0067, issued on January 20, 1988;
(c) Exemption No. 183-2135, issued on November 4, 1991;
(d) Registration No. 183-7602, issued on February 11, 1997; and
(e) Exemption No. 183-8999, issued on October 8, 1997.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on April 25, 2001.

Emission Calculations

(a) Natural Gas Combustion (boiler, Emissions: See page 1 of 1 TSD Appendix A for detailed calculations.

(b) Electroplating Emissions:
(1)

Material	VOC Content (pounds VOC/gal)	Barrel Line #1		Barrel Line #2		Rack Line #1		Rack Line #2	
		Throughput (gal/hr)	VOC Emissions (tons/yr	Throughput (gal/hr)	VOC Emissions (tons/yr	Throughput (gal/hr)	VOC Emissions (tons/yr	Throughput (gal/hr)	VOC Emissions (tons/yr
Soak Clean *	0.0	0.10	0.0	0.75	0.0	0.16	0.0	0.16	0.0
Electro-Clean *	0.0	0.75	0.0	0.64	0.0	0.16	0.0	0.16	0.0
Acid Activator *	0.0	1.52	0.0	1.7	0.0	1.19	0.0	2.86	0.0
These materials do not contain volatile, sulfur oxides and nitrous oxides, and comprised entirely of aqueous solution and will not generate particulate matter.									

(2) Barrel Line #1

Using Nickel Chloride:

Maximum Throughput = 0.02 lb/hr

Emission Factor, Ef = 6.7×10^{-6} gr/dscf (SCC 3-09-010-68)

PM/PM10 Emissions = 6.7×10^{-6} gr/dscf * 16,000 scfm * 60 min/hr * lb/7000 gr * 8760 hrs/yr

* ton/2000 lb /(1-0.97)

= 0.13 ton/yr

PM/PM10/nickel = 0.13 ton/yr (before control)

= 0.004 ton/yr (after control)

Using Alkaline Zinc:

Maximum Throughput = 0.25 gal/hr

Emission Factor, Ef = using equation 2 in chapter 12.20-13 which estimates the controlled emissions from nonchromium plating tanks

$Ef_m = 0.028 * EF_{Cr} * C_m$

$= 0.028 * 4.4 \times 10^{-5}$ grains/dscf * 17 oz/gal

$= 2.1 \times 10^{-5}$ gr/dscf

Where : Ef_m = emission factor for metal "m", grains/dscf,

EF_{Cr} = emission factor for controlled hard chromium electroplating emissions, 4.4×10^{-5} grains/dscf,

C_m = bath concentration for metal "m, 17 oz/gal

PM/PM10 Emissions = 2.1×10^{-5} gr/dscf * 16,000 scfm * 60 min/hr * lb/7000 gr * 8760 hrs/yr * ton/2000 lb /(1-0.97)

= 0.42 ton/yr (before control)

= 0.013 ton/yr (after control)

(3) Barrel Line #2, Rack Line #1 and Rack Line #2

Using Alkaline Zinc/Nickel Sulfate:

Maximum Throughput:

Barrel Line #2 = 0.34 gal/hr

Rack Line #1 = 0.52 gal/hr

Rack Line #2 = 0.52 gal/hr

Emission Factor, Ef = using equation 1 in chapter 12.20-13 (see above calculation)

= 2.1×10^{-5} gr/dscf

PM/PM10 Emissions = 2.1×10^{-5} gr/dscf * 26,000 scfm * 60 min/hr * lb/7000 gr * 8760 hrs/yr * ton/2000 lb * 3 scrubbers /(1-0.97) + 2.1×10^{-5} gr/dscf * 16,000 scfm * 60 min/hr * lb/7000 gr * 8760 hrs/yr * ton/2000 lb * 2 scrubbers /(1-0.97)

= 2.9 ton/yr (before control)

PM/PM10/Nickel = 2.9 ton/yr (before control)

= 0.1 ton/yr (after control)

(4) Barrel Lines#1, #2, Rack Lines #1 and #2

Using Yellow Iridescent/Bronze Chromate
Maximum Throughput:

Barrel Line #1	=	0.15 gal/hr
Barrel Line #2	=	0.46 gal/hr
Rack Line #1	=	0.60 gal/hr
Rack Line #1	=	1.07 gal/hr

The yellow iridescent/bronze chromate bath is not electroplated to the metal parts. This bath is applied via dipping process. Calculation was based on mass balance and the throughput was based on 8760 hrs/yr.

Bronze Chromate 263 S (liquid)	=	0.3% of total solution on Rack 2
Black Chromat 265 E (solid)	=	0.2% of total solution on Rack 2
Iridescent Chromate 268 S (liquid)	=	27.4% of total solution on Barrel 2, Rack 1 & Rack 2
Du-Chrome 554 L (liquid)	=	1.2% of total solution on Barrel 1
Water (liquid)	=	Remainder of solution

(263 S) SO_2 Emissions	=	275 lbs/yr * 0.0326 * ton/2000 lb
	=	0.004 ton/yr
(554 L) SO_2 Emissions	=	165 gal/yr * 0.0219 * 1.36 * 8.34 lb/gal * ton/2000 lb
	=	0.02 ton/yr
(554 L) NOx Emissions	=	165 gal/yr * 0.08 * 1.36 * 8.34 lb/gal * ton/2000 lb
	=	0.075 ton/yr

Methodology:

SO_2 Emissions	=	throughput * % sulfur acid * specific gravity * 8.34 lb/gal * ton/2000 lb
NOx Emissions	=	throughput * % nitric acid * specific gravity * 8.34 lb/gal * ton/2000 lb

(c) Parts Washing Emissions:
The caustic soda used for parts washing do not contain volatile organic compounds (VOC).

(d) Machining Emissions:
This operation involves brass and steel cutting, which utilizes oil lubricant or coolant to wet the metal. Twenty (20) machines process only brass metal at a maximum rate of 150 lbs/hr. Thirty-three (33) machines process only steel metal at a maximum rate of 50 lbs/hr. Only one (1) brass cutting machine identified as Barker Mill machine is a dry cutting process. Potential emission from the Barker Mill machines was calculated using a mass balance approach derive by Dana Coupled Products. The emission was based on brass metal since this machine does not process steel metal.

Maximum Metal Throughput:

Brass Cutting	=	150 lbs/hr for each of the 20 machines
Steel Cutting	=	50 lbs/hr for each of the 33 machines

Metal processed	=	150 lbs/hr
Metal Lost	=	0.15 lb/hr (assumed to be all air-borne)

PM/PM10 Emissions = 0.15 lb/hr * 8760 hrs/yr * ton/2000 lb
= 0.66 ton/yr

(e) Deburring Emissions:

Deburring machine #1	=	225 pounds per hour
Deburring machine #2	=	150 pounds per hour
Deburring machine #3	=	7 pounds per hour
Deburring machine #4	=	300 pounds per hour
TOTAL	=	682 lbs/hr

Material Lost, % = 0.022%
Only machines #1 and #2 are controlled by drum mounted cyclones
Control Efficiency = 90%

Machines #1 - #4 Uncontrolled PM/PM10 Emissions:
= 682 lbs/hr * 0.00022 * ton/2000 lb * 8760 hrs/yr
= 0.657 tons/yr

Machines #1 & #2 Controlled PM/PM10 Emissions:
= 375 lbs/hr * 0.00022 * ton/2000 lb * 8760 hrs/yr * (1-0.90)
= 0.036 ton/yr

Machines #3 & #4 Uncontrolled/Controlled PM/PM10 Emissions:
= 307 lbs/hr * 0.00022 * ton/2000 lb * 8760 hrs/yr
= 0.29 ton/yr

Machines #1 - #4 total Controlled PM/PM10 Emissions:
= 0.036 ton/yr + 0.29 ton/yr
= 0.332 ton/yr

(f) Brazing Emissions:

(1) Brazing Furnaces #1 - #7 Emissions : See Page 1 of 1 TSD Appendix A

(2) Copper Brazing Paste - 18% VOC by weight

VOC Emissions = 2.0 lbs/hr * 18% VOC by wt. * 8760 hrs/yr * ton/2000 lb
= 1.6 tons/yr

(g) Propane Lift Trucks Emissions:

Using FIRE 6.22, SCC 1-03-010-02
Maximum Throughput = 6,600 (based on 8760 hrs/yr)

Pollutant	Throughput (gallons/yr)	Emission Factor (lb/1000 gallon)	Emissions (tons/yr)
PM	6,600	4×10^{-1}	0.0013
PM10	6,600	4×10^{-1}	0.0013
NOx	6,600	14.0	0.05
SO2	6,600	1×10^{-1} s	0.0
VOC	6,600	5×10^{-1}	0.002
CO	6,600	1.9	0.01
Methane	6,600	2×10^{-1}	0.001

Methodology:
Emissions = Propane usage, gal/yr * Ef, lb/1000 gal * ton/2000 lb

(h) Final Assembly Emissions:
Process involves the use of “solvent markers”.
Maximum process Throughput:

Bending machines	=	80 machines
Crimping machines	=	15 machines
Inliner machines	=	3 machines
Solvent marker	=	26 pens/day

The bending, crimping, and inlining operations involve bending, crimping or inlining various parts onto either brass or steel pieces for final assembly of small automotive parts. There are no emissions generated from these operations.

Solvent Marker:

VOC Emissions	=	26 pens/day * 0.065 lb/pen * 100 % VOC by wt * 365 days/yr * ton/2000lb
	=	0.31 ton/yr
HAPs Combined Emissions	=	26 pens/day * 0.065 lb/pen * 100 % VOC by wt * 365 days/yr * ton/2000lb
	=	0.31 ton/yr

The solvent marker contains ethyl benzene, glycol ether and xylene.

(i) Wastewater Pretreatment:
Wastewater is temporarily stored in several 1000-gallon plastic tanks prior to treatment and release to the municipal waterwaste plant. Using the EPA water8 database a negligible amount of VOC and HAP emissions are generated from this pretreatment process.

SUMMARY OF EMISSIONS (TONS/YEAR)

Pollutant	Natural Gas Boiler	Various Natural Gas Combustion Units	Electroplating		Deburring		Parts Washing	Machining	Brazing	Propane Lift Trucks	Final Assembly	TOTAL	
			Uncontrolled	Controlled	Uncontrolled	Controlled						Uncontrolled	Controlled
PM	0.04	0.16	3.45	0.117	0.657	0.332	0.0	0.66	0.0	0.0013	0.0	4.97	1.31
PM10	0.17	0.66	3.45	0.117	0.657	0.332	0.0	0.66	0.0	0.0013	0.0	5.59	1.94
VOC	0.13	0.48	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.002	0.31	2.52	2.52
NOx	2.28	8.67	0.075	0.075	0.0	0.0	0.0	0.0	0.0	0.05	0.0	11.075	11.075
SO2	0.01	0.05	0.024	0.024	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.084	0.084
CO	1.91	7.28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.0	9.20	9.20
Methane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.001	0.0	0.001	0.001
Nickel	0.0	0.0	3.03	0.104	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.03	0.104
Combined Ethyl benzene, Glycol ether and xylene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.31	0.31	0.31

Potential To Emit Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	4.97
PM-10	5.59
SO_2	0.084
VOC	2.52
CO	9.20
NO_x	11.075

HAP’s	Potential To Emit (tons/year)
Methane	0.001
Ethyl benzene, glycol ether, xylene	0.31

Nickel	3.03
TOTAL	3.34

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM10 is greater than 5 tons per year but less than 25 tons per year and NOx is greater than 10 tons per year but less than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.5.

County Attainment Status

The source is located in Whitley County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	not determined

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Whitley County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Whitley County has been classified as attainment or unclassifiable for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing re-permitted source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Emissions (ton/yr)
PM	1.31
PM10	1.94
SO_2	0.084
VOC	2.52
CO	9.20
NO_x	11.075
Single HAP	0.104
Combination HAPs	0.31

(a) This existing re-permitted source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28

listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)
This **existing re-permitted** source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:
(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons/year.

Federal Rule Applicability

(a) New Source Performance Standards (NSPS):

(1) 40 CFR Part 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. This NSPS applies to boilers with a maximum heat input capacity of 100 mmBtu/hr or less but greater than 10 mmBtu/hr.

The one (1) natural gas-fired boiler, with a heat input capacity of 5.2 million British Thermal Units per hour (mmBtu/hr) is not subject to this NSPS, because it is smaller than 10 mmBtu/hr.

(b) There are no other New Source Performance Standard, 326 IAC 12, (40 CFR 60) that may apply to the source.

(c) National Emission Standards for Hazardous Air Pollutants (NESHAPs):

(1) 40 CFR Part 63, Subpart N - National Emission Standards for Chromium Emission from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks.

This NESHAP is not applicable to the source, because the electroplating that the source has uses bronze chromate and not chromic acid or chromium anhydride.

(2) 40 CFR Part 63, Subpart T - National Emission Standards for Halogenated Solvent Cleaner.

This NESHAP is not applicable to the source's two (2) parts washers because they do not use any of the halogenated solvents listed in the rule.

(3) 40 CFR Part 63, Subpart DD - National Emissions Standards for Hazardous Air Pollutants form Off-site Waste and Recovery Operations. The wastewater operation is not subject to this NESHAP because the source is not a major source for HAPs, and the plant does not treat off-site wastewater.

(d) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

(a) 326 IAC 2-6 (Emission Reporting)
This source is located in Whitley County and the potential to emit VOC or NOx is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

(b) 326 IAC 5-1 (Visible Emissions Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(1) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

(a) 326 IAC 6-2-4 (PM Emissions from Sources of Indirect Heating)

(1) The one (1) 5.2 mmBtu/hr natural gas-fired boiler, installed in 1984 is subject to 326 IAC 6-2-4. The PM emission limit is determined using the following equation:

$Pt = 1.09/Q^{0.26}$
$= 1.09/5.2^{0.26}$
$= 0.71$ lb/mmBtu

Where: Pt = pounds of particulate matter emission limit in pound per million Btu (lb/mmBtu) heat input.
Q = Total source maximum operating capacity rating in million Btu per hour (mmBtu/hr) heat input.

The source will be limited to 0.60 lb/mmBtu, since the calculated PM limit is higher.

1.9 lb/MMCF * MMCF/1000 mmBtu = 0.0019 lb/mmBtu, therefore the boiler is in compliance with the rule.

(2) Various natural gas combustion units, listed in items (b) through (m) of the source's process description on Pages 1 and 2 of this TSD are not subject to 326 IAC 6-2 because they are not sources of indirect heating.

(b) 326 IAC 6-3-2 (Process Operations)
This rule mandates a PM emission limit for the following equipment using the following equation:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Facility ID	Process Weight Rate (tons/hr)	PM Emissions Limit (pounds/hour)
Machining	0.075	0.72
Deburring	0.341	1.99
Electroplating	0.008	0.16

The source is in compliance with this rule, because the potential emissions for each of the above facilities are lower than the limits.

(c) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The source is not subject to 326 IAC 2-4.1, because it does not emit single HAP at 10 tons per year or greater nor emits combined HAPs at 25 tons per year or greater. It also predates the applicability of this rule.

(d) 326 IAC 8-3 (Organic Solvent Degreasing Operations)
This rule is not applicable to the two (2) part washers, because they do not use organic solvent in washing metal parts. They use caustic soda which does not contain VOCs.

Conclusion

The operation of this stationary source that manufactures automotive shall be subject to the conditions of the attached **Registration 183-14330-00015.**

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Company Name: Dana Coupled Products
Address City IN Zip: 2651 S. 600 E., Columbia City, IN 46725
Registration: 183-14330-00015
Reviewer: Aida De Guzman
Date Application Received: April 25, 2001

Heat Input Capacity MMBtu/hr		Potential Throughput MMCF/yr
5.2	- boiler	45.6
19.79	- various comb. units	173.4

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Boiler Pot'l. Emissions (tons/yr)	0.04	0.17	0.01	2.28	0.13	1.91
Various Combustion Units (tons/yr)	0.16	0.66	0.05	8.67	0.48	7.28

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).